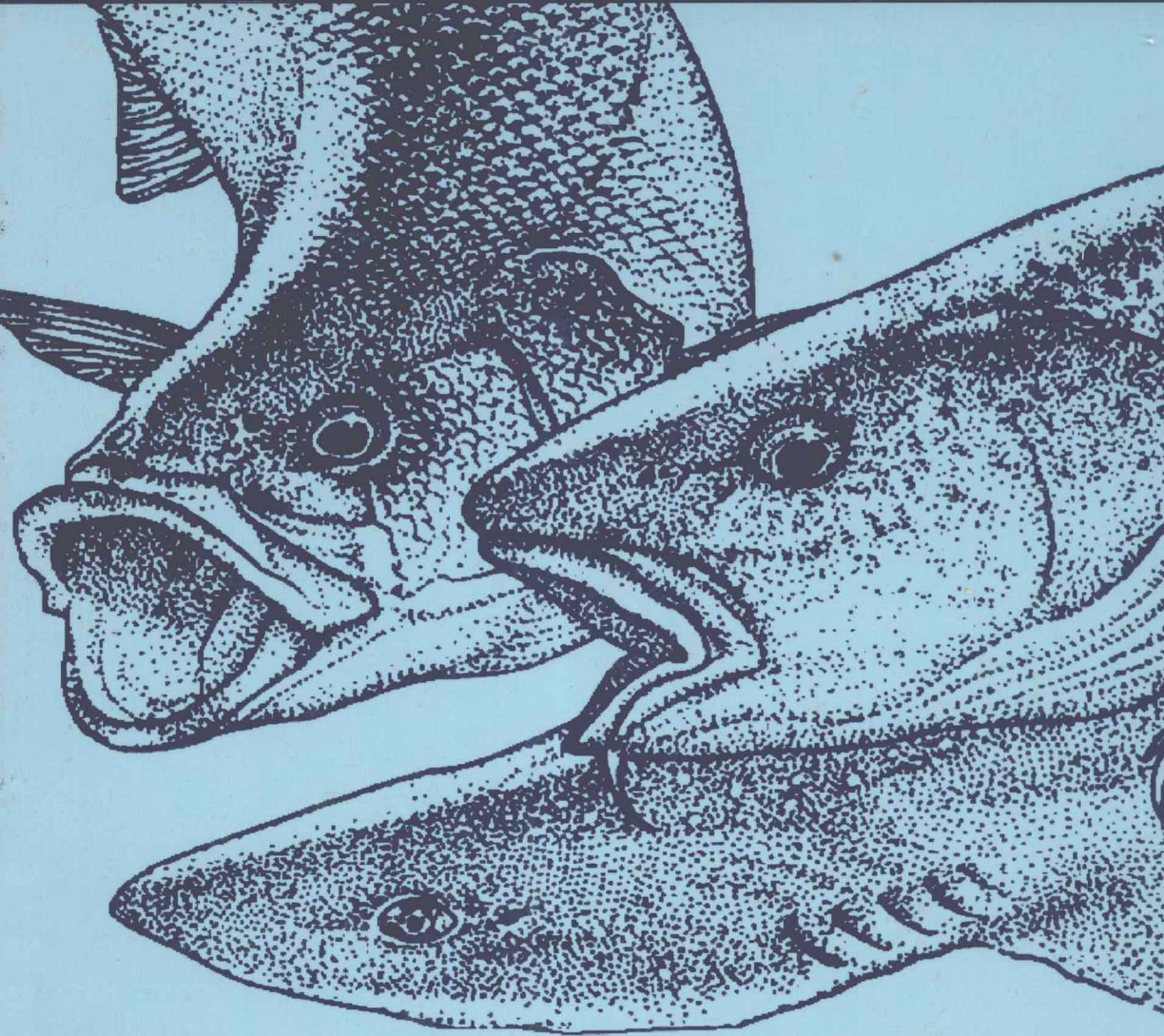


Management of Shared Fish Stocks

Edited by

A.I.L. Payne, C.M. O'Brien and S.I. Rogers



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Management of Shared Fish Stocks

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Centre for Environment, Fisheries and Aquaculture Science (CEFAS)

Lowestoft Laboratory, Pakefield Road, Lowestoft, Suffolk



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Foreword

During 2002, the Centre for Environment, Fisheries and Aquaculture Science (CEFAS) celebrated its centenary of fisheries research at Lowestoft. As one of several events celebrating that centenary, CEFAS hosted a forward-looking international symposium entitled “International Approaches to Management of Shared Stocks – Problems and Future Directions” in July 2002. Personal invitations resulted in the attendance of some 80 scientists, policy-makers and managers from more than 20 countries, covering many of the world’s main fishing areas and a variety of resources. Presentations were both verbal and poster, and four keynote speakers (Doug Butterworth, South Africa; Kevern Cochrane, FAO, Italy; Geoff Kirkwood, UK; and John Pope, UK) led presentations and discussion on four interwoven themes:

- The consequences and management of unregulated/unreported catches
- Competition
- External drivers and resource behaviour
- Ecosystems and migration.

The 20 papers that form the bulk of this volume are the peer-reviewed result of some of the presentations, including the four keynotes, and the order of publication is the same as the four themes listed above; the interwoven nature of the themes is clear from the content of the papers. The two discussion papers that follow the 20 scientific papers were not peer-reviewed, but the content was collated by rapporteurs and the co-chairs (the keynote speakers) from the discussions.

CEFAS management, the various sponsors, the editors, the event organisers, the CEFAS Publications and Graphics Team, the indexer, the authors, the reviewers, the rapporteurs, the participants, the four keynote speakers and Blackwell are all acknowledged for their valued support for and input into what we hope will become a useful part of the reference literature on this crucial fisheries management topic. We hope that you, the reader, will find as much of value from this volume as we did in bringing it to publication.

Andrew I.L. Payne (Symposium Chair)
Sarah Rollo (Symposium Organiser)
July 2003



Back row: John Hoolihan, Michael Armstrong, Nick Bailey, Chris Darby, Hamed Al-Oufi, Moses Maurihungirire, Colin Bannister, John Pope, Doug Butterworth, Stephen Wentworth, Tore Jacobsen, Victor Restrepo, Jordi Lleonart.

3rd row: Evald Ojaveer, Graham Pilling, Georgs Kormilovs, Carl O'Brien, John Reynolds, Mahfuzul Haque, Chris Morrice, Al-Sayyid Ibrahim Al-Busaidi, Geoff Tingley, Robert Aps, Brian Robinson, Tomasz Linkowski, Mike Pawson, Ted Potter, John Casey, Julian Metcalfe.

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Front row: Charlotte Mogenssen, Akaki Komakhidze, Sarah Rollo, Evgeny Romanov, Laurence Kell, Andrew Payne, Matthew Dunn, John Barton, Eugene Sabourenkov, David Agnew, Ewen Bell, Mary Brown, Georgi Daskalov.

Photograph: © Victoria Harrison

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Deterring IUU Fishing

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ABSTRACT: Illegal, unreported and unregulated (IUU) fishing is a problem that has been around since the first attempts at fishery management. However, it has deservedly been given high prominence in recent years as more and more instruments designed to manage fisheries on the high seas have come into force. The International Plan of Action on IUU fishing (IPOA–IUU), developed by FAO within the framework of its Code of Conduct for Responsible Fisheries, is a major step forward. The aim of this paper is review progress in implementing some of the measures outlined in the IPOA and to discuss future prospects for eliminating IUU fishing. The paper begins by examining the incentives to fish illegally and relating the various measures in the IPOA to how they decrease particular incentive factors and increase disincentive factors. Three of the measures are then discussed in more detail. The first is the means available to a State to prevent illegal fishing in waters over which it has jurisdiction. The second relates to measures that can be taken against flag of convenience vessels. The third covers imposition of trade-related measures, increasingly being pursued by Regional Fisheries Management Organizations, especially ICCAT and CCAMLR. The paper concludes with suggestions for further actions to deter and prevent IUU fishing.

INTRODUCTION

As an activity, illegal, unreported and unregulated (IUU) fishing has been with us since fisheries management first started. As an acronym, however, it is much younger. First used informally during the early 1990s by the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR)¹ in relation to Southern Ocean fishing, it began life as “IU” (illegal and unreported). Formal use of the term IUU can be found in the report of the Commission’s XVIth Meeting in 1997 and in a letter to the Food and Agriculture Organization of the United Nations (FAO) that same year, in which the nature and seriousness of these problems were described². IUU fishing is now commonly understood to refer to fishing activities that are inconsistent with or in contravention of the management or conservation measures in force for a particular fishery.

¹ *The Commission established under Article VII of the Convention on the Conservation of Antarctic Marine Living Resources (CAMLR), 1980. Reprinted in International Legal Materials, 19: 827.*

² *Executive Secretary, CCAMLR to FAO (REF: 4.2.1. (I), 18 December 1997), as cited in Lugten, G. 1999. A review of Measures taken by Regional Marine Fishery Bodies to address contemporary Fishery Issues. FAO Fisheries Circular, 940. FAO, Rome: Footnote 130 at 35.*

There are a number of international instruments that contain provisions that are of relevance to the control of IUU fishing. These include the 1982 United Nations Law of the Sea Convention³ (the 1982 Agreement), the 1993 FAO Compliance Agreement, the 1995 United Nations Straddling Stocks Agreement⁴ (the 1995 Agreement), and the 1995 FAO Code of Conduct for Responsible Fisheries (see Edeson, 1966). However, none of these was set up to deal directly with IUU fishing.

Concern over the growth of IUU fishing worldwide increased rapidly during the late 1990s. In early 1999, the need to prevent, deter and eliminate IUU fishing was addressed by the FAO Committee on Fisheries (COFI; FAO, 1999) and shortly afterwards the FAO announced its intention to develop a global plan of action to deal effectively with all forms of IUU fishing. In early 2000, the Government of Chile in cooperation with the FAO convened an International Conference on Monitoring, Control and Fishing Surveillance⁵. This was followed by a Government of Australia/ FAO Expert Consultation in Sydney in May 2000⁶, which started the process of elaboration of an International Plan of Action (IPOA) on IUU fishing. Following two further Technical Consultations, the IPOA was adopted by COFI in March 2001 (FAO, 2001). The IPOA is a voluntary agreement, and it has been elaborated within the overall framework of the FAO Code of Conduct for Responsible Fishing.

IUU fishing is defined in paragraph 3 of the IPOA as follows:

“Illegal fishing refers to activities:

- (1) conducted by national or foreign vessels in waters under the jurisdiction of a State, without the permission of that State, or in contravention of its laws and regulations;
- (2) conducted by vessels flying the flag of States that are parties to a relevant regional fisheries management organization but operate in contravention of the conservation and management measures adopted by that organization and by which the States are bound, or relevant provisions of the applicable international law; or
- (3) in violation of national laws or international obligations, including those undertaken by co-operating States to a relevant regional fisheries management organization.

Unreported fishing refers to fishing activities:

- (1) which have not been reported, or have been misreported, to the relevant national authority, in contravention of national laws and regulations; or
- (2) undertaken in the area of competence of a relevant regional fisheries management organization which have not been reported or have been misreported, in contravention of the reporting procedures of that organization.

³ *United Nations Convention on the Law of the Sea, Montego Bay, 10 December 1982.*

⁴ *Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks. New York, 4 December 1995.*

⁵ *Report of the International Conference on Monitoring, Control and Fisheries Surveillance, Santiago, Chile, 25–27 January 2000.*

⁶ *Report of the Expert Consultation on Illegal, Unreported and Unregulated Fishing, Organized by the Government of Australia in Cooperation with FAO, Sydney, Australia 15–19 May 2000. Paper AUS:IUU/2000/3, available at www.affa.gov.au/ecoiuuf.*

Unregulated fishing refers to fishing activities :

- (1) in the area of application of a relevant regional fisheries management organization that are conducted by vessels without nationality, or by those flying the flag of a State not party to that organization, or by a fishing entity, in a manner that is not consistent with or contravenes the conservation and management measures of that organization; or
- (2) in areas or for fish stocks in relation to which there are no applicable conservation or management measures and where such fishing activities are conducted in a manner inconsistent with State responsibilities for the conservation of living marine resources under international law.”

Not all unregulated fishing is necessarily conducted in contravention of applicable international law. This is because many high seas waters and/or fisheries are still unregulated by regional fishery management organisations (RFMOs). Examples of these include the orange roughy/alfonsino fishery in the southern Indian Ocean, and the toothfish fishery on the northern Patagonian shelf edge. The IPOA specifically acknowledges this exception (paragraph 3.4), but we consider it as another dimension to the IUU problem. While there is no doubt that the orange roughy/alfonsino fishery is currently legitimately unregulated, it certainly should become regulated, and the negotiations for the South-West Indian Ocean Convention address this concern. With the entry into force (in December 2001) of the 1995 UN Straddling Stocks Agreement, it has been argued that there are no areas of high seas fishing that may be considered legitimately unregulated in terms of States obligations under that Agreement and Part VII of the 1982 Agreement. However, this appears to be an area of international law about which there remain differences of opinion (see, for example, Freestone & Makuch, 1996), and we will leave further comment on this issue to those more qualified to make it.

The main body of the IPOA outlines a lengthy series of measures designed to prevent, deter and eliminate IUU fishing. These are grouped under the headings: all State responsibilities, Flag State responsibilities, Coastal State measures, Port State measures, internationally agreed market-related measures, and regional fisheries management organizations.

In this paper we first examine the factors influencing the incentives for IUU fishing and place the various measures proposed in the IPOA in the context of how they are likely to decrease the incentives and increase the disincentives. We then discuss in more detail enforcement measures, actions against open register or flag of convenience IUU fishing and trade-related measures, which are three areas in which progress in deterring IUU fishing seems to be being made at present. We conclude by briefly discussing some other possible measures that may be brought to bear. We do not attempt, in this paper, to quantify the extent of IUU fishing worldwide. Nor do we discuss in detail the specifics of particular control measures. In relation to IUU fishing for Patagonian toothfish, such an assessment is provided by Sabourenkov and Miller (2003) in a separate paper to this Symposium.

INCENTIVES AND DISINCENTIVES FOR IUU FISHING

It is already clear that there is no single measure that, if taken, would immediately eliminate IUU fishing. Consequently, before attempting to evaluate ways in which IUU fishing

might be deterred, it is valuable first to identify the incentives for IUU fishing. The extent to which possible measures may succeed will almost certainly depend on how much they act to reduce the incentives and enhance the disincentives.

The reasons that vessels are engaged in IUU fishing are solely economic, if we ignore the possibility that some vessel owners and crew may simply prefer to fish illegally. This also immediately implies that vessel owners will prefer to engage their vessels legally in regulated fisheries rather than in IUU fishing, as long as the opportunity to do so exists and legal fishing is sufficiently profitable. However, for a substantial and increasing number of vessels, the conditions of this proviso are not met. As estimated by FAO (2000), almost 70% of the world's fisheries are either fully exploited, overexploited, or in various stages of recovery from overexploitation. Management responses to this have led in many cases to substantially reduced allowable catches, and at last action is also being taken to reduce the overcapacity that exists in most of the world's major fishing fleets. In the absence of heavily subsidized decommissioning schemes, and with ageing vessels being replaced in regulated fleets by (heavily subsidized) newer and more efficient vessels, it is inevitable that owners of vessels unable to maintain past levels of profits will look for other options.

In previous eras, pressures such as these led to vessels looking offshore for new fishing opportunities. For example, the establishment of Exclusive Economic Zones (EEZs) led to many distant water fleets being excluded from fisheries in waters of coastal state jurisdiction, and the response was the development of then-unregulated fisheries on the high seas. This legitimate avenue is now no longer open to many such vessels, because most of these resources are now regulated by RFMOs and many are also subject to substantial levels of exploitation. There are therefore now strong incentives to engage in unregulated fishing by transferring vessels to the fishing vessel registers of open register States, thereby becoming what is otherwise known as Flag of Convenience (FOC) vessels, or to engage in illegal fishing.

The overall economic incentives underlying the rise in illegal and unregulated fishing are therefore clear. To progress further, however, it is useful to consider the incentives (and disincentives) a little more closely. We do this by examining the factors affecting the simple profit and loss equation for IUU fishing:

$$\text{Profit from IUU fishing} = \text{Benefit from IUU fishing} - \text{Cost of IUU fishing}$$

The benefit, obviously, arises from the sale of the catch. If access to markets is unrestricted, the future benefits for IUU fishing look rosy. While the demand for marine fish products continues to rise steadily, overall supply has been at best static for a number of years and, given the state of the world's marine fish stocks, it is unlikely to increase much above current levels in the near future. Buoyant and increasing fish prices are therefore to be expected. The key to reducing the incentive for IUU fishing arising from the benefits available, equally obviously, is to restrict access to markets for IUU-caught fish.

In the case of illegal trading in over-quota catches taken in many regulated fisheries (so-called "black fish"), many of the fish are put into a bulk market, where they are relatively easily disguised as other fish products. Other factors aside, the prices obtained for these fish are probably sufficiently low that they alone would discourage entry into such fisheries solely as an IUU vessel. Almost all such fishing is probably done by otherwise legitimate fishers, though the boundary between what is effectively opportunistic IUU fishing and specialist IUU fishing may be blurred. The benefits available from